Defense Information Infrastructure (DII)

Common Operating Environment (COE)

Version 3.0.0.3P1

Version Description Document for the
Kernel Patch 1 (Solaris 2.5.1)

March 4, 1997

Prepared for:

Defense Information Systems Agency

Prepared by:

Inter-National Research Institute (INRI)
12200 Sunrise Valley Drive, Suite 300
Reston, Virginia 20191

Table of Contents

This page intentionally left blank.

NOTE: Courier font is used to indicate entries to be typed at the keyboard, UNIX commands, file and directory names, and screen text. For example:

The file is located in the `DII_DEV` directory.

Helvetica font is used to indicate keys to be pressed. For example:

Press [RETURN].

1. System Overview

This Defense Information Infrastructure (DII) Common Operating Environment (COE) Kernel Patch 1 tape (Solaris 2.5.1) contains patches to the operating system. The tape provides the following:

- New version of the `inst.dii` script, which is run in order to install the following 13 operating system patches and security patches recommended by Sun Microsystems:

    -- 103663-03 - `libresolv`, `in.named`, `named-xfer`, `nslookup`, and `nstest` (This patch is installed individually first to access its libraries.)

    -- 103558-05 - `admintool` fixes for security and missing `swmtool` options

    -- 103582-02 - `/kernel/drv/tcp` patch

    -- 103594-06 - `/usr/lib/sendmail` fixes

    -- 103612-07 - `libc`, `libnsl`, `nis_cachemgr`, and `rpc.nisd` patch

    -- 103630-03 - `ip`, `ifconfig` and `arp` patch

    -- 103640-03 - kernel patch

    -- 103680-01 - `nscd/nscd_nischeck` rebuild for BIND 4.9.3

    -- 103686-01 - `rpc.nisd_resolv` rebuild for BIND 4.9.3

    -- 103696-01 - `/sbin/su` and `/usr/bin/su` patch

    -- 103817-01 - `rdist` suffers from buffer overflow

    -- 103866-02 - binary compatibility patch (BCP)

    -- 104010-01 - `VolMgt` patch.

Instructions for loading these patches are included in Section 4, *Installation Instructions*, of this Version Description Document.

- The `inst.ssa` install script, which is run in order to install the following SPARCstorage Array (SSA) Solaris 2.5.1 patch.

    -- 103766-02 - SSA Solaris 2.5.1: Jumbo patch for SSA for Solaris.

WARNING: The 103766-02 SSA Solaris 2.5.1: Jumbo patch can only be installed on a system that has a SPARCstorage Array. If the SSA Solaris 2.5.1: Jumbo patch is installed on a system that does not have a SPARCstorage Array, the patch installation will fail and an error message will appear; however, this failed installation of this patch will not adversely affect the operation of the system. If you are not sure if your system has a SPARCstorage Array, see your system administrator.

Reference the *Defense Information Infrastructure (DII) Common Operating Environment (COE) SPARCstorage Volume Manager 2.1.1 Installation Guide* for further information about the proper configuration and installation of SSAs and Volume Manager 2.1.1 and about the installation of the 103766-02 SSA Solaris 2.5.1: Jumbo patch.

2.   Referenced Documents

The following documents are referenced in this Version Description Document:

- *Defense Information Infrastructure (DII) Common Operating Environment (COE) Integration and Runtime Specification* Version 2.0, DII COE I&RTS:Rev 2.0, Inter-National Research Institute, October 23, 1995

- *Defense Information Infrastructure (DII) Common Operating Environment (COE) Kernel Installation Guide (Solaris 2.5.1) FINAL* Version 3.0.0.3, DII.3003.Final.Sol251.IG-1, Inter-National Research Institute, October 29, 1996

- *Defense Information Infrastructure (DII) Common Operating Environment (COE) Version 3.0.0.3 SPARCstorage Volume Manager 2.1.1 Installation Guide*, DII.3003.SSA.Sol251.IG-1, Inter-National Research Institute, January 22, 1997

- *Defense Information Infrastructure (DII) Common Operating Environment (COE) System Administrator's Guide (HP and Solaris) FINAL* Version 3.0.0.3, DII.3003.Final.UNIX.AG-1, Inter-National Research Institute, October 29, 1996.

3. Version Description

3.1 Inventory of Materials Released

- <u>Magnetic media</u>: Two 8mm tapes consisting of a relative tar of the DII COE Kernel Patch 1, Version 3.0.0.3P1 (Solaris 2.5.1).

- <u>Soft-copy Documentation</u>: One 3.5" floppy diskette (WordPerfect 6.0 for Windows format) containing the *Defense Information Infrastructure (DII) Common Operating Environment (COE) Version 3.0.0.3P1 Version Description Document for the Kernel Patch 1 (Solaris 2.5.1)*, Document Control No. DII.3003P1.UNIX.KernelP1.VDD-2, March 4, 1997.

- <u>Hard-copy Documentation</u>: Two hard copies of the aforementioned Version Description Document.

3.2 Software Changes

The `inst.dii` install script was modified to install the latest Solaris 2.5.1 Operating System patches. This `inst.ssa` script was modified to install the operating system patch for the SSA.

4. Installation Instructions

The 13 operating system patches and security patches from the DII COE Kernel Patch 1 tape can be installed either before or after the DII COE Kernel has been installed on your machine. If you are installing the patch tape before installing the DII COE Kernel, remember to first install the Solaris 2.5.1 operating system on your machine. Reference the *DII COE Kernel Installation Guide (Solaris 2.5.1)* for information on installing the Solaris 2.5.1 operating system and the DII COE Kernel.

The SSA Solaris 2.5.1 patch from the DII COE Kernel Patch 1 tape can be installed as described in the *Defense Information Infrastructure (DII) Common Operating Environment (COE) SPARCstorage Volume Manager 2.1.1 Installation Guide*.

The subsections below describe how to install the 13 operating system patches and security patches.

4.1 Installing the Operating System Patches and Security Patches Before Installing the Kernel

Follow the steps below to install the operating system patches and security patches from the DII COE Kernel Patch 1 tape before the DII COE Kernel has been installed.

NOTE: The Solaris 2.5.1 operating system must be installed on your machine before the patch tape can be loaded.

STEP 1: **Log in**. Log in as `root` and enter your password. A prompt appears.

STEP 2: **Remove the Solaris 2.5.1 CD from the CD-ROM drive, if necessary.** Type the following command to eject the Solaris 2.5.1 CD from the CD-ROM drive:

> `eject cdrom` [RETURN]

Remove the CD from the drive.

STEP 3: **Load the patch tape.** Load the DII COE Kernel Patch 1 tape into a tape drive.

STEP 4: **Extract the patches from the tape.** Type the following command if the Sun-compatible tape drive is attached to the system:

> `tar xvf /dev/rmt/Xmn` [RETURN]

(where `x` is the tape drive number)

Type the following command if the Sun-compatible tape drive is attached to another SPARC system:

> `rsh Y dd if=/dev/rmt/Xmn bs=20b | tar xvfB -` [RETURN]

(where `Y` is the remote host's IP address, and `x` is the tape drive number)

NOTE: The tape drive number is a number from 0-6 (usually 0). If you are unsure of the tape drive number, type the `tar xvf /dev/rmt/Xmn` command using "0" as the value for `x`. If this command does not work, type the command using the numbers 1-6 for `x`, respectively.

A prompt appears after the patches are extracted from the tape.

STEP 5: **Load the Kernel tape.** Load the DII COE Kernel tape into a tape drive.

NOTE: You must remove the DII COE Kernel Patch 1 tape and load the DII COE Kernel tape before you can execute the `inst.dii` install script.

STEP 6: **Start the installation program.** Wait until the lights on the tape drive have stopped flashing. Type the following command to start the installation program:

> `/tmp/inst.dii` [RETURN]

A message appears indicating that the installation will take 20-45 minutes. Press [RETURN]**.**

Follow the steps in Section 3.4, starting at STEP 7, of the *DII COE Kernel Installation Guide (Solaris 2.5.1)* to finish installing the DII COE Kernel.

4.2   Installing the Operating System Patches and Security Patches After Installing the Kernel

Follow the steps below to install the operating system patches and security patches from the DII COE Kernel Patch 1 tape after the DII COE Kernel has been installed.

STEP 1: **Log in**. Log in as `root` and enter your password. A terminal emulator window with root privileges appears.

STEP 2: **Change the directory to `root`.** Type the following command to change the directory to root:

> `cd /` [RETURN]

STEP 3: **Load the patch tape**. Load the DII COE Kernel Patch 1 tape into a tape drive.

STEP 4: **Extract the patches from the tape**. Type the following command if the Sun-compatible tape drive is attached to the system:

> `tar xvf /dev/rmt/Xmn` [RETURN]

(where X is the tape drive number)

Type the following command if the Sun-compatible tape drive is attached to another SPARC system:

`rsh Y dd if=/dev/rmt/Xmn bs=20b | tar xvfB -` [RETURN]

(where `Y` is the remote host's IP address, and `X` is the tape drive number).

NOTE: The tape drive number is a number from 0-6 (usually 0). If you are unsure of the tape drive number, type the `tar xvf /dev/rmt/Xmn` command using "0" as the value for `X`. If this command does not work, type the command using the numbers 1-6 for `X`, respectively.

A prompt appears after the patches are extracted from the tape.

STEP 5: **Change to the directory containing the first patch.** Type the following command at the prompt to change to the directory containing the first patch. This patch must be installed individually to access its libraries.

`cd /h/2.5.1_Patches.new/103663-03` [RETURN]

STEP 6: **Install the first patch**. Type the following command at the prompt to install the first patch:

`./installpatch .` [RETURN]

The following messages appear after the patch has been installed:

```
Patch number 103663-03 has been successfully installed.
Patch packages installed:
   SUNWcsu
```

STEP 7: **Change to the directory containing the remaining patches.** Type the following command at the prompt to change to the directory containing the remaining patches.

`cd /h/2.5.1_Patches.new` [RETURN]

STEP 8: **Remove the directory containing the software for the first patch**. Type the following command to remove the directory containing the software for the patch installed in STEP 6. Removing this directory will prevent reinstallation of the first patch.

`rm -rf 103663-03` [RETURN]

STEP 9: **Install the remaining patches**. Type the following command to install the remaining patches:

```
./install_cluster -q -nosave -novalid [RETURN]
```

A message appears as each patch is installed.

Installation of the patches takes approximately 10 minutes.

STEP 10: **Change to the parent directory**. Type the following command at the prompt to change to the `/h` directory.

```
cd /h [RETURN]
```

STEP 11: **Confirm that the patches are installed**. Type the following command at the prompt to confirm that the patches have been installed:

```
showrev -p [RETURN]
```

The patches that have been installed successfully are listed. Beside each successfully installed patch is a list of patches that have become obsolete with the installation of the new patch (`Obsoletes`), patches required with the new patch (`Requires`), patches that are incompatible with the new patch (`Incompatibles`), and packages (`Packages`).

STEP 12: **Remove the directory containing the patches**. Type the following command at the prompt to remove the directory containing the original patches and the patches just installed:

```
rm -rf 2.5.1_Patches [RETURN]
```

```
rm -rf 2.5.1_Patches.new [RETURN]
```

This directory is obsolete because the patches have been installed in the operating system. Installation of the DII COE Kernel Patch 1 tape is now complete.

5. Known Problems and Errors

None.

6. Release Notes

1. The DII COE Kernel Patch 1 tape includes the latest version of the Solaris 2.5.1 Operating System patches. If the previous set of nine operating system patches has been installed, the manual steps in Section 4.2 should be used to overwrite those nine patches. Only two patches will fail the installation because they have already been installed and are not new versions: 103680-01 and 103817-01.

2. Patch 103461-10 (runtime library patch for Solaris 2.5.1) is recommended by Sun Microsystems but is not included on the DII COE Kernel Patch 1 tape. It is not included because it modifies Motif and adversely affects DII COE functionality.

3. Patch 103743-01 is recommended by Sun Microsystems but is not included on the DII COE Kernel Patch 1 tape. Patch 103743-01 is the patch for XFN source modification for BIND 4.9.3. XFN is the Federated Naming System. This patch is for the SUNWfns software, which is not installed during the operating system load. This software is meant to resolve names on any machine, regardless of which name service is used (e.g., DNN, NIS, X.500). This software will need to be tested to see how it affects the DII COE Kernel.

4. Patch 103683-01 is recommended by Sun Microsystems but is not included on the DII COE Kernel Patch 1 tape. Patch 103683-01 is not installed because it is made obsolete by the new version of Patch 103663-03.